

PATENT ABSTRACTS OF JAPAN

(11) Publication number : 02-071203
(43) Date of publication of application : 09. 03. 1990

(51) Int. Cl. G02B 6/12
G02B 6/30

(21) Application number : 01-050197 (71) Applicant : AMERICAN TELEPH & TELEGR

CO <ATT>

(22) Date of filing : 03. 03. 1989 (72) Inventor : BLONDER GREG E

(30) Priority

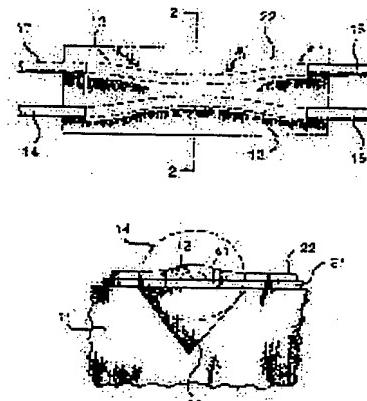
Priority number :	88 163686	Priority date :	03. 03. 1988	Priority country :	US
-------------------	-----------	-----------------	--------------	--------------------	----

(54) DEVICE HAVING OPTICAL WAVEGUIDE SUPPORTED BY SUBSTRATE

(57) Abstract:

PURPOSE: To facilitate connection by adopting a structure to cut the lower side of waveguide in the case optical fibers are connected to the waveguide supported to a substrate.

CONSTITUTION: This device is provided with the silicon substrate 11 which is covered by a silica cover layer 22, the waveguides 12, 13 of the thin films which exist under the silica cover layer 22 and the optical fibers 14, 15, 16 and 17 which are aligned to the waveguides 12, 13 arranged in the etched V-grooves of the silicon substrate 11. In such a case, the grooves 31 undercut the waveguide 12 over the distance sufficient to enable the optical butt coupling between the waveguide 12 and the optical fiber 14. The butt coupling renders the physical contact between the waveguide 12 and the optical fiber 14 and a certain distance between the waveguide 12 of the diameter smaller than the diameter of the mode of the optical fiber 14 and the optical fiber 14. As a result, the connection of the optical fibers 14 to 17 is facilitated.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against
examiner's decision of rejection]

[Date of extinction of right]

Copyright (C) ; 1998, 2003 Japan Patent Office